In the Claims:

Cancel claims 45-50, and amend claims 40-42, 51, 52, 57, 59-61, and 63-64 as follows.

40. (Amended) A method for obtaining a scaffold-based protein that binds to a compound, said method comprising:

(a) contacting a compound with a library of scaffold-based candidate proteins, wherein the scaffold is derived from the tenth module of the human fibronectin type III domain (^{10}Fn3), said scaffold-based proteins having at least one randomized loop, said library comprising scaffold-based proteins characterized by their ability to bind to compounds that are not bound by said human fibronectin type III domain and wherein said binding ability results from the randomization of said at least one loop, said contacting being carried out under conditions that allow binding to form a compound-scaffold-based protein complex; and

(b) obtaining, from said complex, a scaffold-based protein having at least three randomized loops that binds to said compound.

41. (Amended) A method for obtaining a compound that binds to a scaffold-based protein, said method comprising:

(a) contacting a scaffold-based protein with a candidate compound, wherein the scaffold is derived from the tenth module of the human fibronectin type III domain

(^{10}Fn3), said scaffold-based protein having at least three randomized loops, said scaffold-based protein being characterized by its ability to bind to a compound that is not bound by said human fibronectin type III domain and wherein the binding ability results from the randomization of said at least three loops, said contacting being carried out under conditions that allow binding to form a compound-scaffold-based protein complex; and

(b) obtaining, from said complex, a compound that binds to said scaffold-based protein.

42. (Amended) The method of claim 40, said method further comprising further randomizing at least one loop of said human fibronectin type III domain of said protein obtained in step (b) and repeating said steps (a) and (b) using said further randomized protein.

51. (Amended) The method of claim 40 or 41, wherein at least one of said randomized loops is extended in length relative to the corresponding loop of human ^{10}Fn3.

52. (Amended) The method of claim 40 or 41, wherein said ^{10}Fn3 lacks an integrin-binding motif.

57. (Amended) The method of claim 41, wherein said scaffold-based protein is immobilized on a solid support.

59. (Amended) A method for detecting a compound in a sample, said method comprising:

(a) contacting said sample with a scaffold-based protein which binds to said compound, wherein the scaffold is derived from the tenth module of the human fibronectin type III domain (^{10}Fn3), said scaffold-based protein having at least three randomized loops, said scaffold-based protein being characterized by its ability to bind to a compound that is not bound by said human fibronectin type III domain and wherein the binding ability results from the randomization of said at least three loops, said contacting being carried out under conditions that allow binding to form a compound-scaffold-based protein complex; and

(b) detecting said complex, thereby detecting said compound in said sample.

60. (Amended) The method of claim 59, wherein said scaffold-based protein is immobilized on a solid support.

61. (Amended) The method of claim 60, wherein said scaffold-based protein is immobilized on said solid support as part of an array.